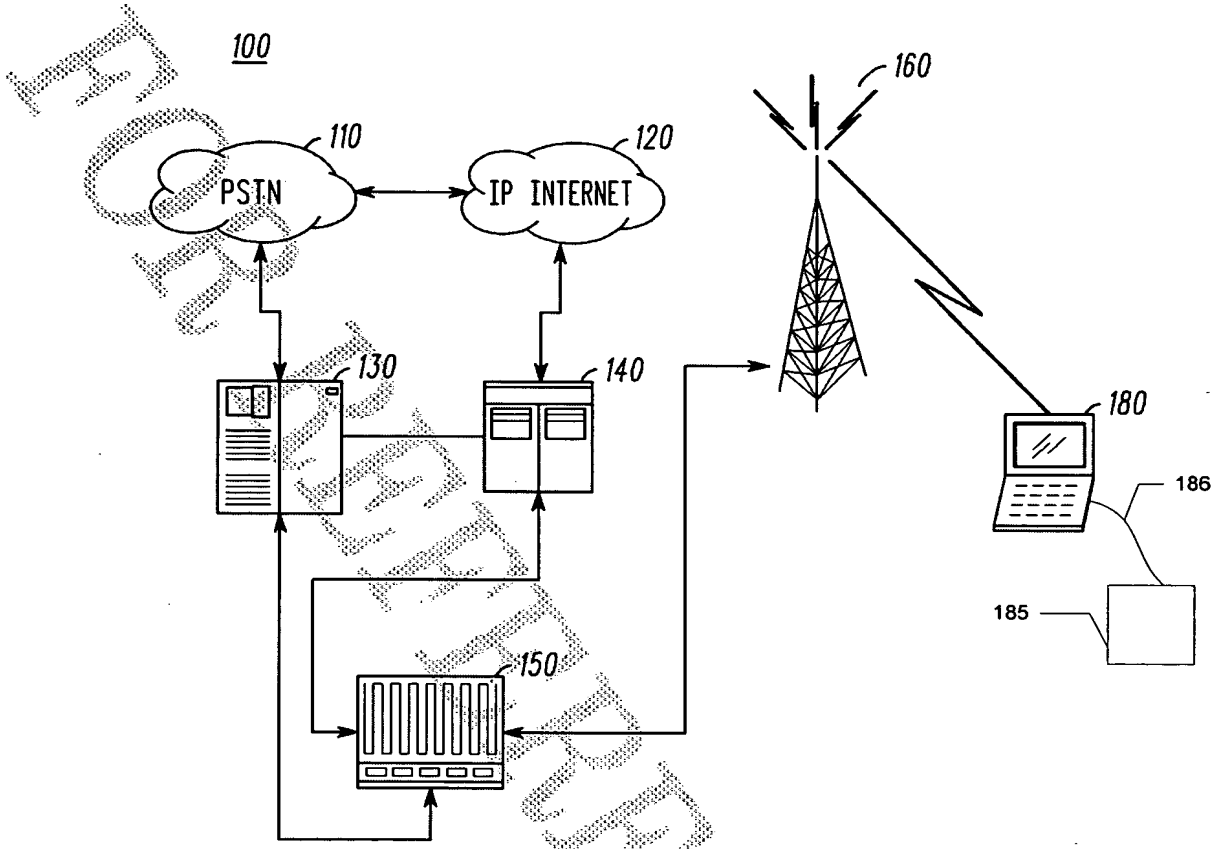


FIG. 1

Illustrator - Element 180 should look like a cellular phone and element 185 should look like a laptop computer

Examiner Approved

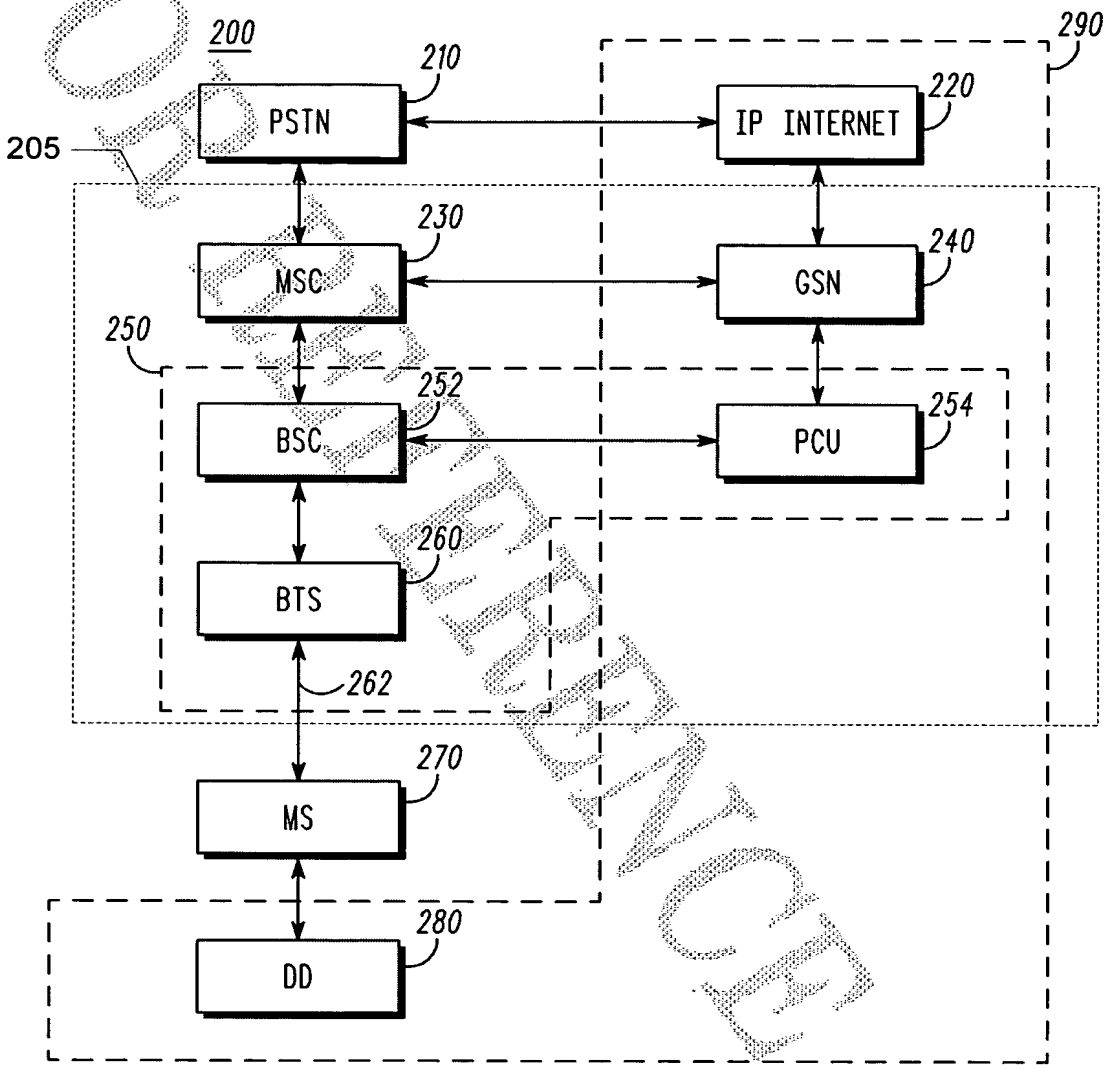


FIG. 2

FOR EXAMINATION PURPOSES ONLY

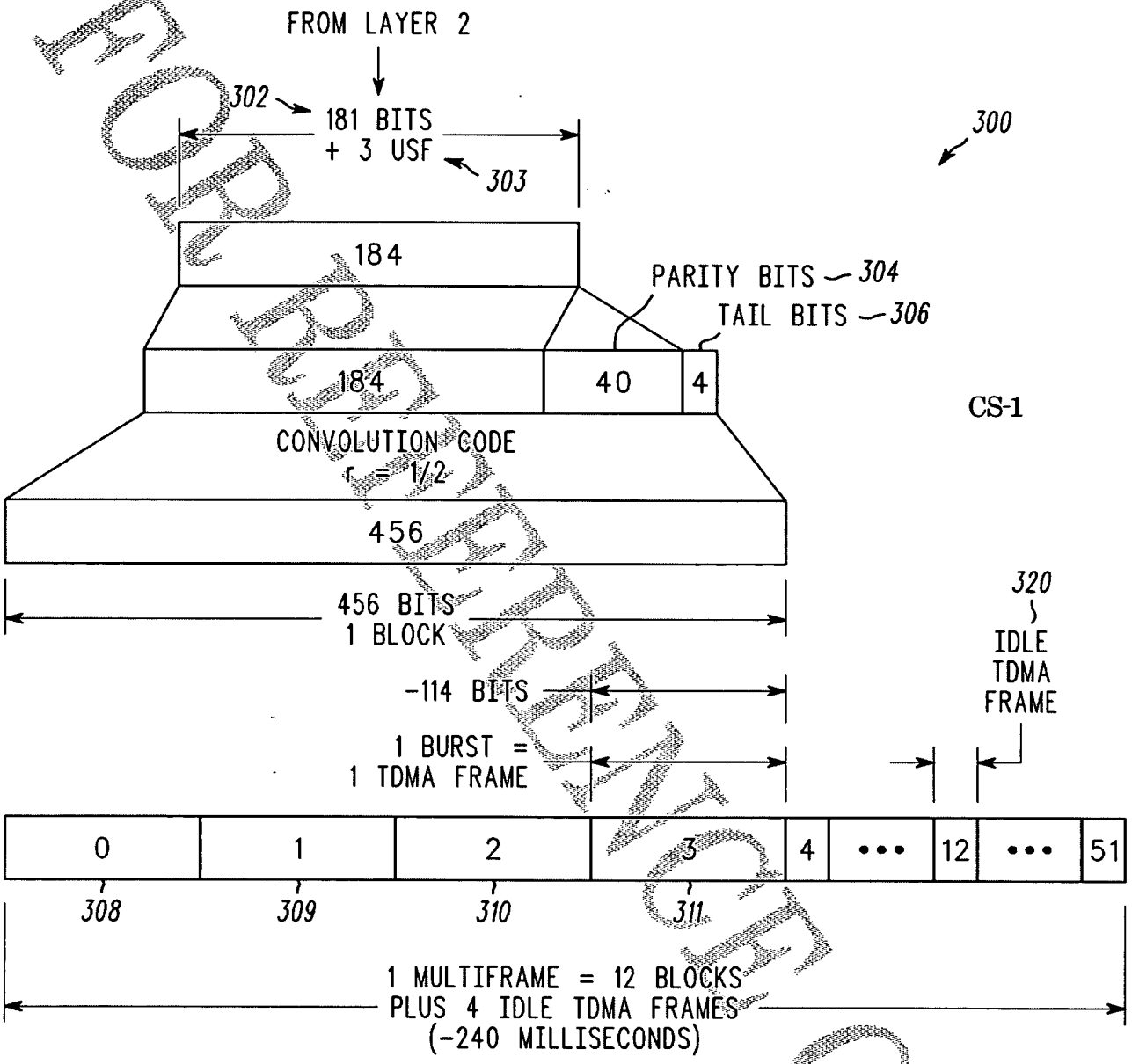


FIG. 3

FILED ELECTRONICALLY

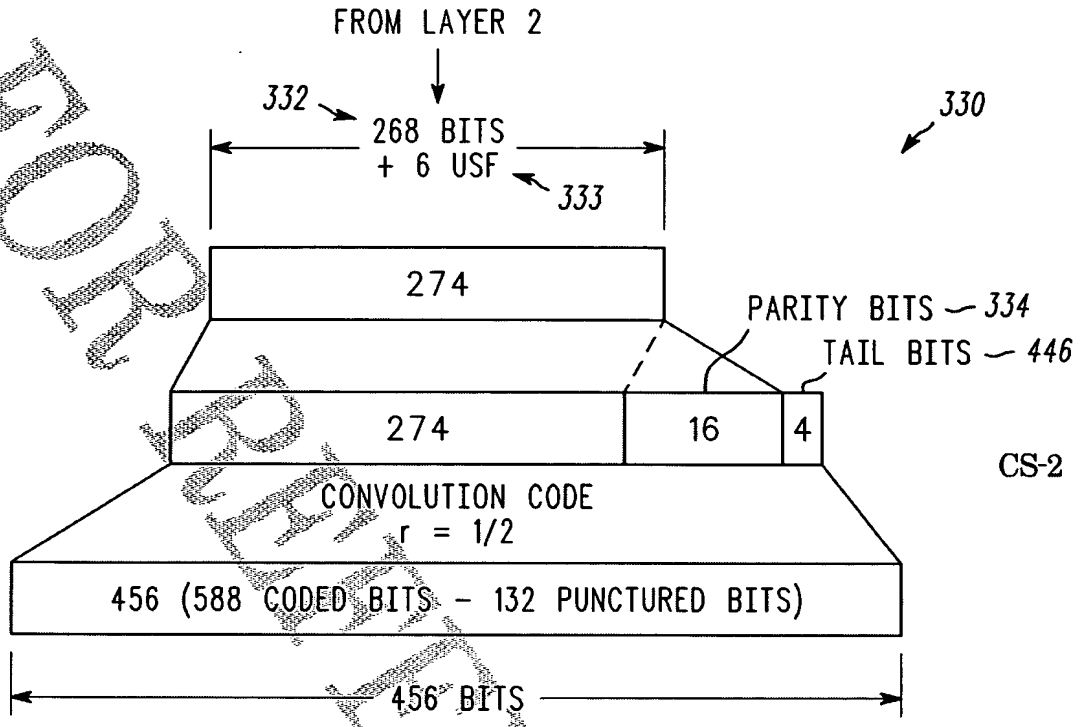


FIG. 4

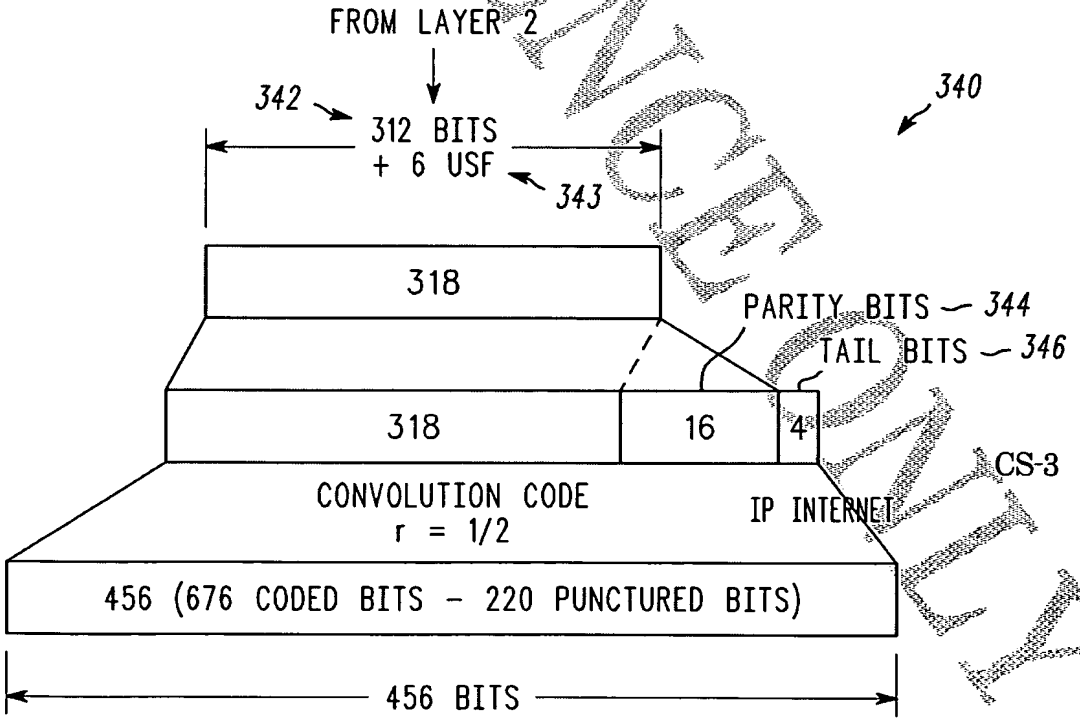


FIG. 5

FOR PRESENTATION PURPOSES ONLY

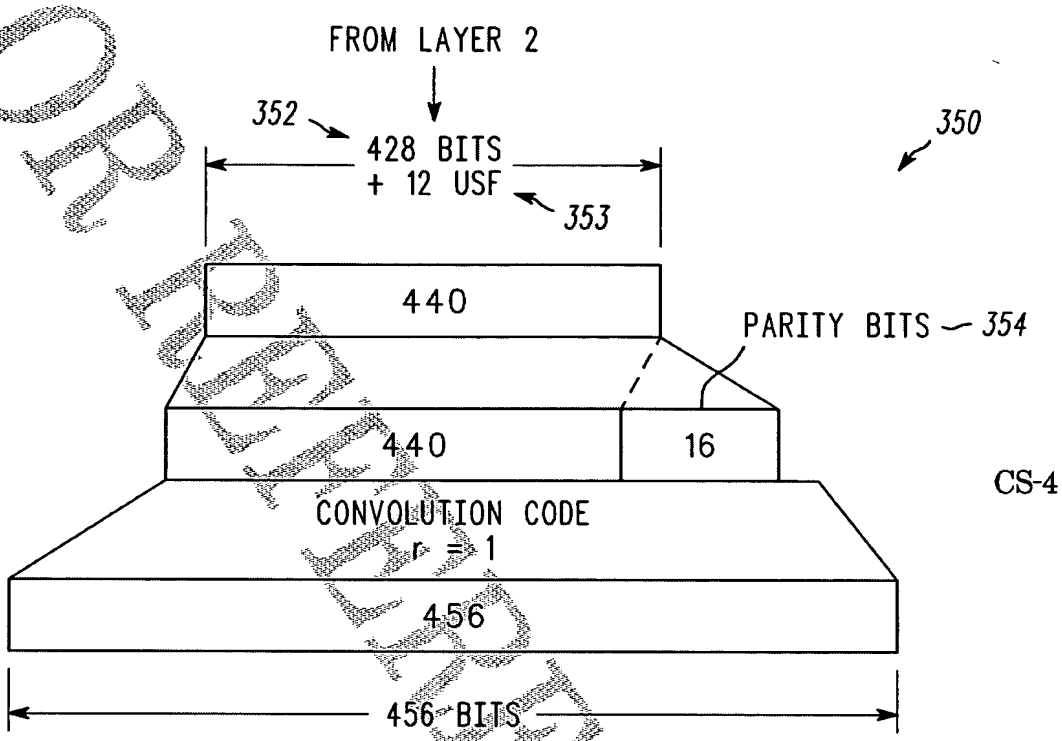


FIG. 6

FOR PREPARATION ONLY

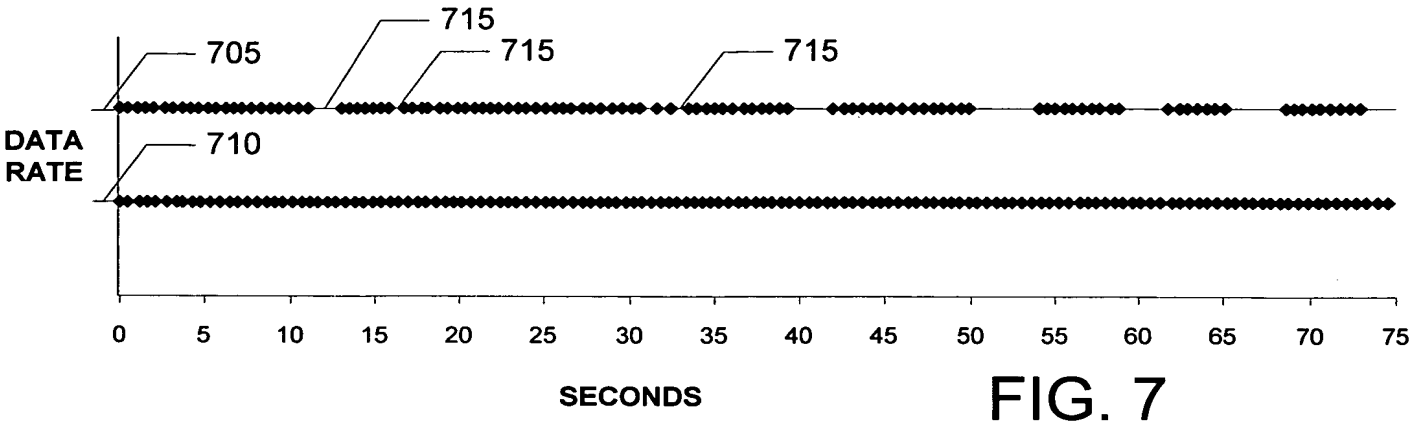


FIG. 7

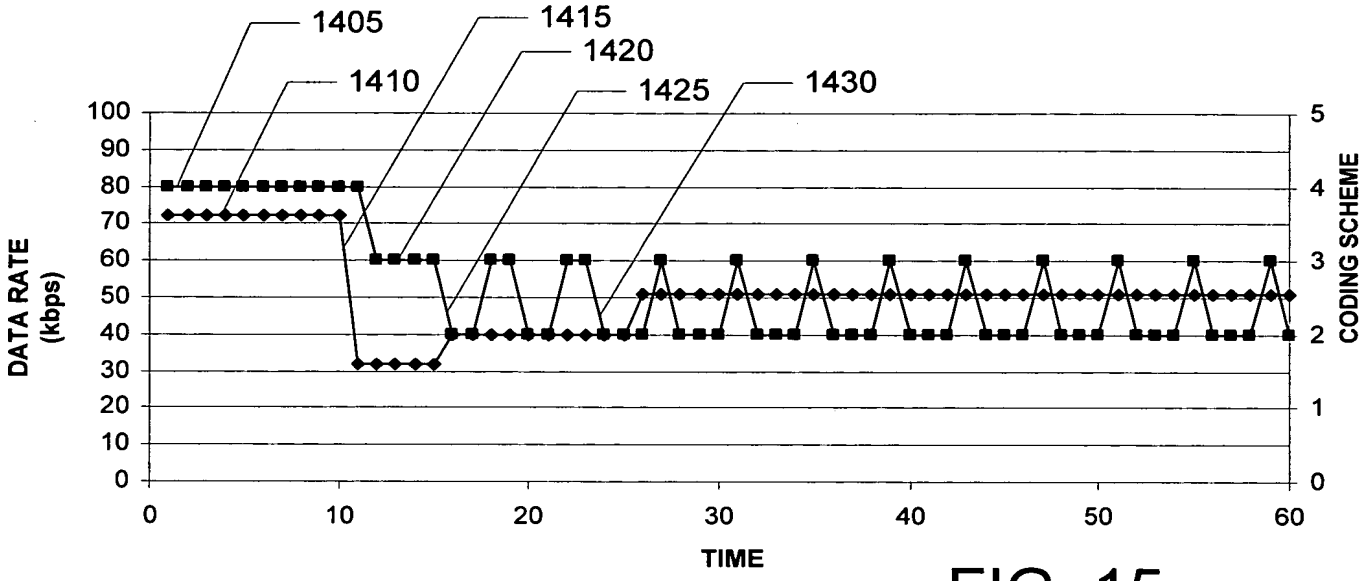


FIG. 15

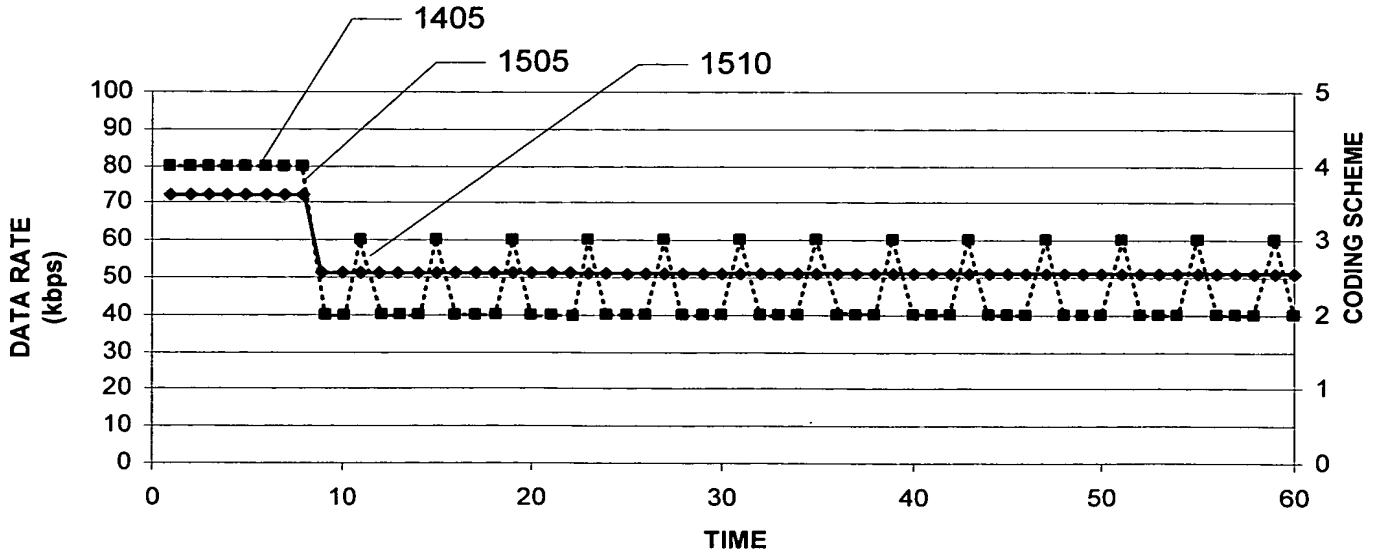
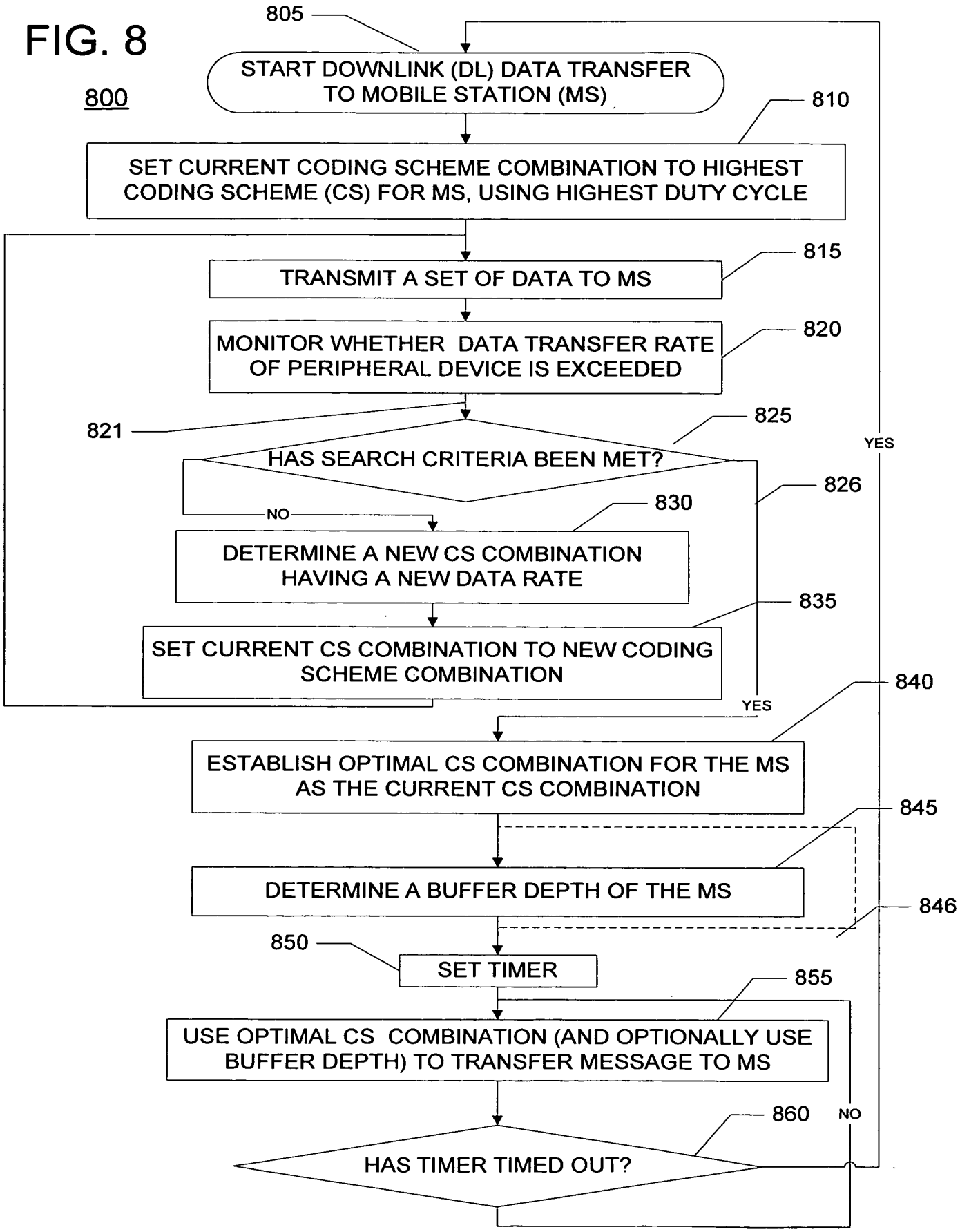


FIG. 16

FIG. 8


800
805
START DOWNLINK (DL) DATA TRANSFER TO MOBILE STATION (MS)
810
SET CURRENT CODING SCHEME COMBINATION TO HIGHEST CODING SCHEME (CS) FOR MS, USING HIGHEST DUTY CYCLE
815
TRANSMIT A SET OF DATA TO MS
820
MONITOR WHETHER DATA TRANSFER RATE OF PERIPHERAL DEVICE IS EXCEEDED
821
825
HAS SEARCH CRITERIA BEEN MET?
YES
826
NO
830
DETERMINE A NEW CS COMBINATION HAVING A NEW DATA RATE
835
SET CURRENT CS COMBINATION TO NEW CODING SCHEME COMBINATION
YES
840
ESTABLISH OPTIMAL CS COMBINATION FOR THE MS AS THE CURRENT CS COMBINATION
845
DETERMINE A BUFFER DEPTH OF THE MS
846
850
SET TIMER
855
USE OPTIMAL CS COMBINATION (AND OPTIONALLY USE BUFFER DEPTH) TO TRANSFER MESSAGE TO MS
860
HAS TIMER TIMED OUT?
NO

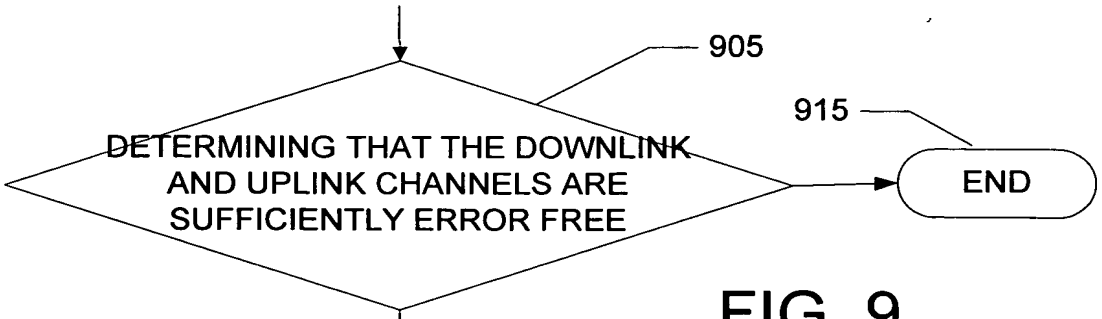
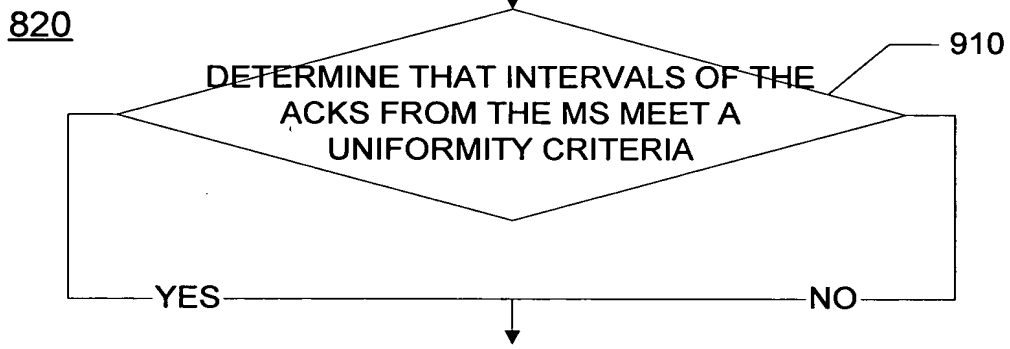

905
915
DETERMINING THAT THE DOWNLINK AND UPLINK CHANNELS ARE SUFFICIENTLY ERROR FREE
END

FIG. 9


820
910
DETERMINE THAT INTERVALS OF THE ACKS FROM THE MS MEET A UNIFORMITY CRITERIA
YES
NO

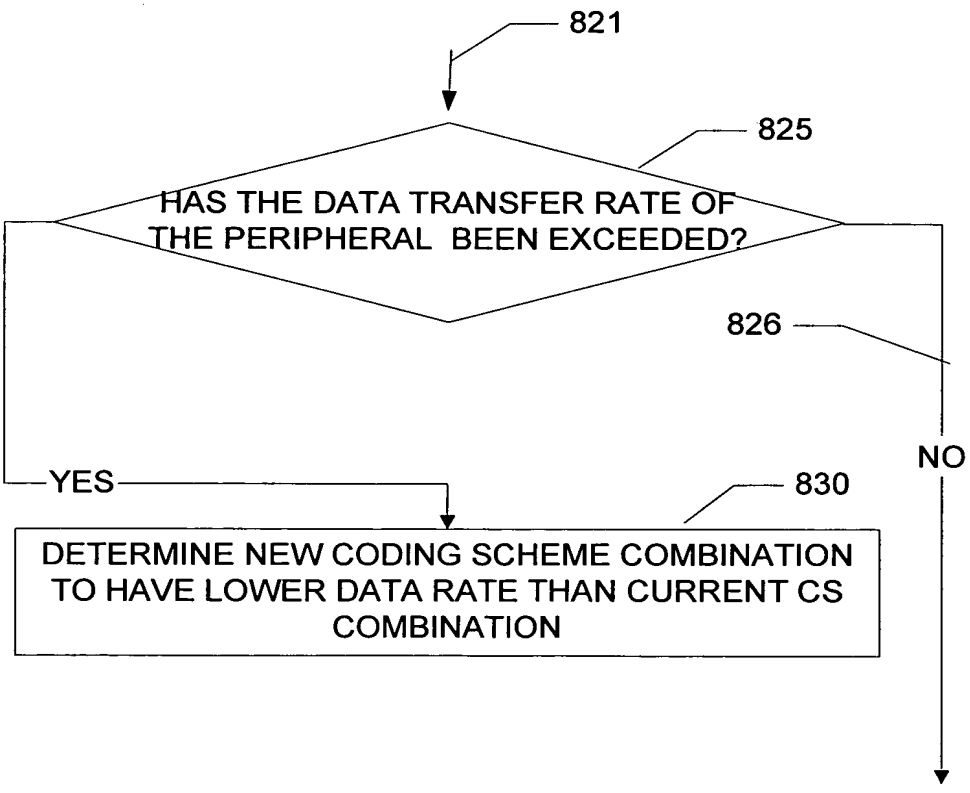
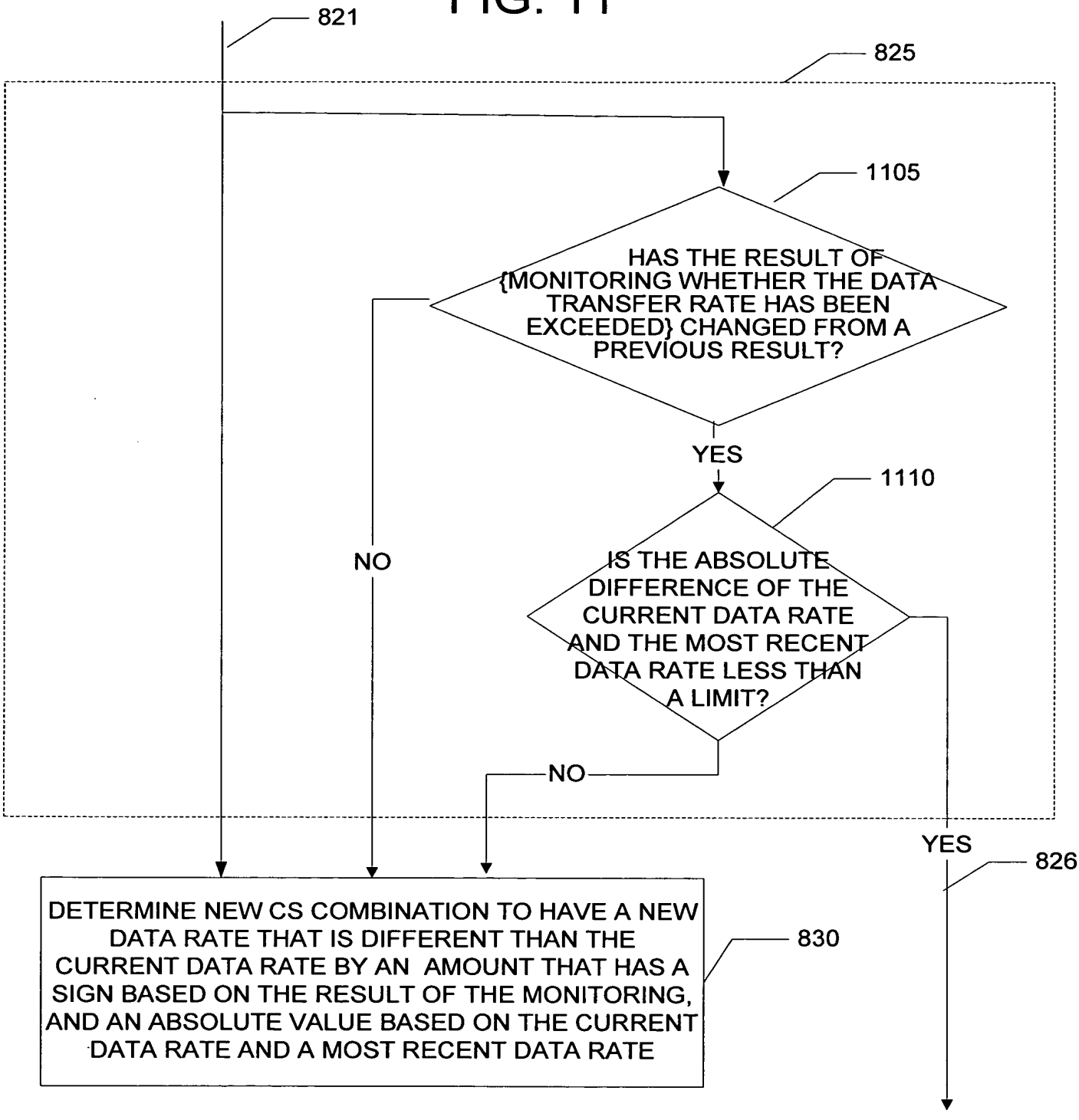

821
825
HAS THE DATA TRANSFER RATE OF THE PERIPHERAL BEEN EXCEEDED?
826
NO
YES
830
DETERMINE NEW CODING SCHEME COMBINATION TO HAVE LOWER DATA RATE THAN CURRENT CS COMBINATION

FIG. 10

FIG. 11


821
825
1105
HAS THE RESULT OF {MONITORING WHETHER THE DATA TRANSFER RATE HAS BEEN EXCEEDED} CHANGED FROM A PREVIOUS RESULT?
YES
NO
1110
IS THE ABSOLUTE DIFFERENCE OF THE CURRENT DATA RATE AND THE MOST RECENT DATA RATE LESS THAN A LIMIT?
NO
YES
826
DETERMINE NEW CS COMBINATION TO HAVE A NEW DATA RATE THAT IS DIFFERENT THAN THE CURRENT DATA RATE BY AN AMOUNT THAT HAS A SIGN BASED ON THE RESULT OF THE MONITORING, AND AN ABSOLUTE VALUE BASED ON THE CURRENT DATA RATE AND A MOST RECENT DATA RATE
830

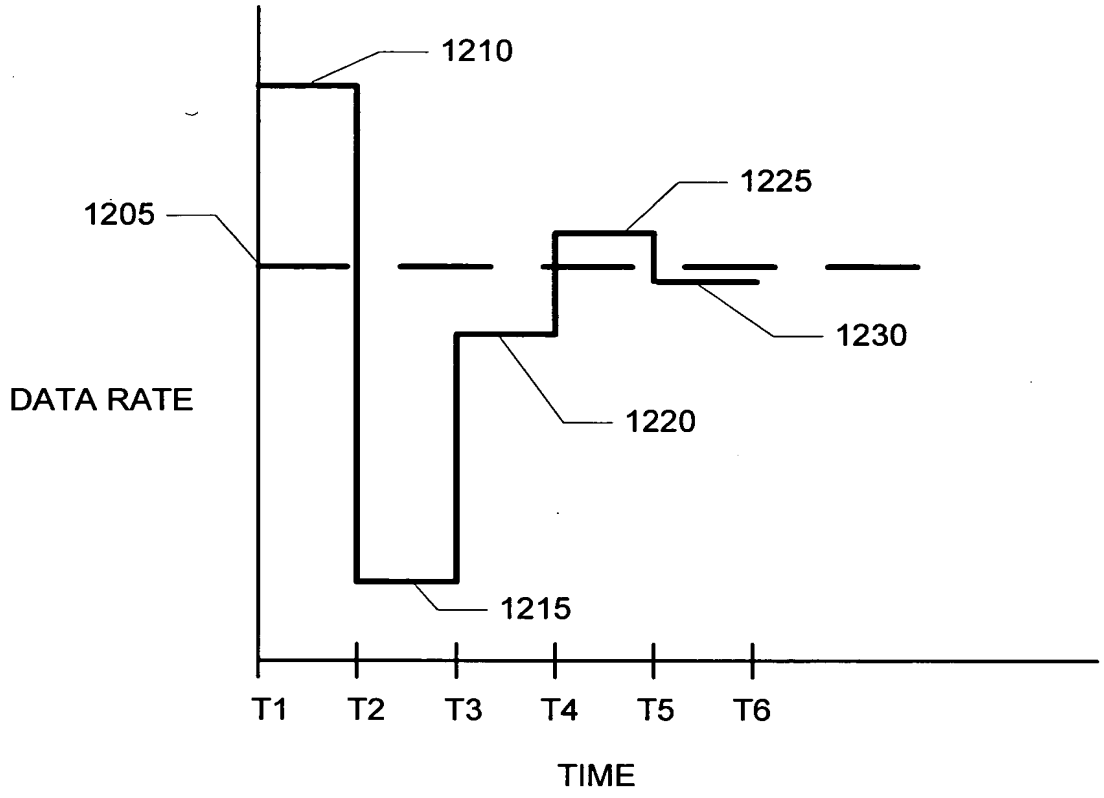


FIG. 12

FIG. 13

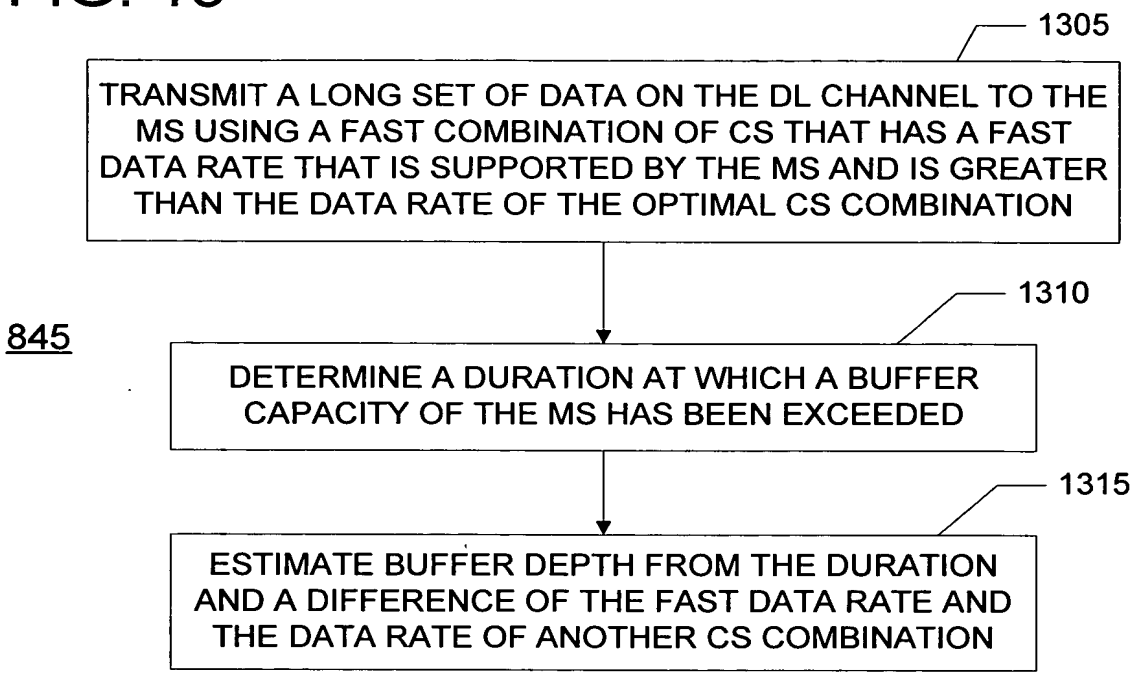
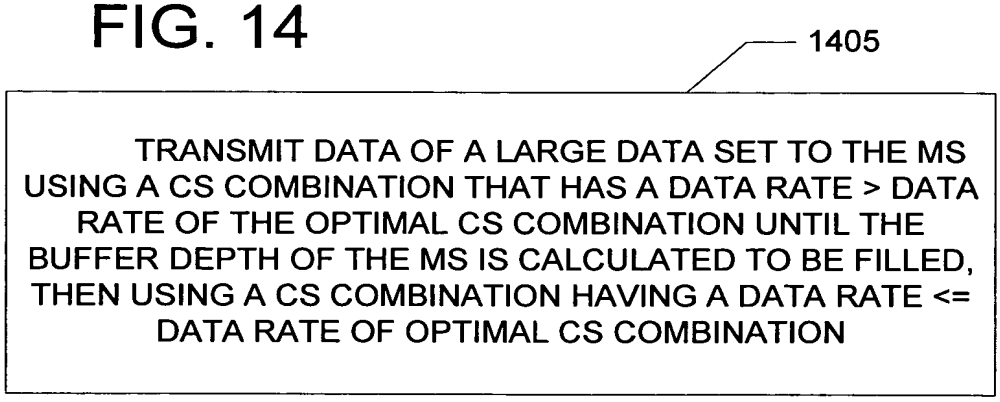

1305
TRANSMIT A LONG SET OF DATA ON THE DL CHANNEL TO THE MS USING A FAST COMBINATION OF CS THAT HAS A FAST DATA RATE THAT IS SUPPORTED BY THE MS AND IS GREATER THAN THE DATA RATE OF THE OPTIMAL CS COMBINATION
1310
845
DETERMINE A DURATION AT WHICH A BUFFER CAPACITY OF THE MS HAS BEEN EXCEEDED
1315
ESTIMATE BUFFER DEPTH FROM THE DURATION AND A DIFFERENCE OF THE FAST DATA RATE AND THE DATA RATE OF ANOTHER CS COMBINATION

FIG. 14


1405
TRANSMIT DATA OF A LARGE DATA SET TO THE MS USING A CS COMBINATION THAT HAS A DATA RATE > DATA RATE OF THE OPTIMAL CS COMBINATION UNTIL THE BUFFER DEPTH OF THE MS IS CALCULATED TO BE FILLED, THEN USING A CS COMBINATION HAVING A DATA RATE <= DATA RATE OF OPTIMAL CS COMBINATION
855